

Name: _____ Date: _____ Period: _____

Scientific Method/Observations/Inferences/Graphing Review

1. What are the main steps of the Scientific Method?

- P roblem
- R esearch
- H ypothesis
- E xperiment
- A nalyze
- C onclusion

2. What are observations?

Observations are the gathering of information using your senses

5 senses
 Sight
 smell
 taste
 touch
 hear

3. What are the 2 types of observations? Give an example of each.

Qualitative (Quality): The girl's pants are red.

Quantitative (Quantity) #: There are 5 books on the shelf.

4. What is an inference? Give an example.

A guess based on an observation using prior knowledge
The grass is wet; it must have rained

5. What is the independent variable in an experiment?

Located on the X axis
The thing changing in the experiment

6. What is the dependent variable in an experiment?

Located on the Y axis.
What you are measuring in an experiment

7. What is the control in an experiment?

The group not receiving what's being tested.

Ex: Does chewing gum influence test scores
Control — Group not receiving gum during the test.

8. Why is the control important?

You need something to compare your results to.

9. What are constants (controlled variables) in an experiment?

The factors in an experiment that stay the same.

10. Why are constants important?

So you know that the independent variable is the only thing influencing the experiment.

11. What are the 3 types of graphs?

line bar pie chart

12. On which axis does the independent variable belong?

X

13. On which axis does the dependent variable belong?

Y

14. What does SULTAN stand for?

S - scale

U - units

L - label

T - title

A - accuracy

N - neatness